91-06451/

Manitoba

Fire Loss Report 1988

Labour

Office of the
Fire Commissioner

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Office of the Fire Commissioner

The office of the Fire Commissioner is responsible for promoting and encouraging fire safety to reduce loss of life and property resulting from fires, dangerous goods, structural and mechanical matters and other related hazards.

The Branch administers Part II of the Fire Prevention Act and The Building and Mobile Homes Act.

Specific objectives include:

- Investigating fires to determine origin and cause

- Providing training services to fire fighters, building officials and emergency service personnel on topics such as fire prevention and protection practices, handling of dangerous goods, rescue techniques and building safety

- Promoting fire prevention through public education

- Consulting with fire departments and other agencies to evaluate and recommend fire protection equipment

- Inspecting buildings to ensure they meet the requirements of the Fire and Building Codes

- Reviewing building plans and advising building officials on the requirements of the Manitoba Building Code

- Compiling information concerning fire loss statistics and the activities of the fire service

Review of 1988

Thirty persons died and 306 were injured as a result of 7,010 fires in 1988, causing a total dollar loss of $60,710,917.

Fourteen men, four women, and 12 children lost their lives in 22 fires. The presence of alcohol was a contributing factor in nine fatalities, or in approximately one-third of all fire-related deaths. Of the 30 fatalities, 21 occurred in one and two family homes.

Chart 1 depicts an increase of 989 fires or 16% over the 6,021 incidents reported in 1987. Severe drought conditions throughout the province were responsible for the majority of this increase. Outdoor property fires rose by 828 or 39% over the previous year.

Chart 2 also indicates a dramatic rise in the amount of property damage. There was an increase of $10.5 million or 21% over the previous year.

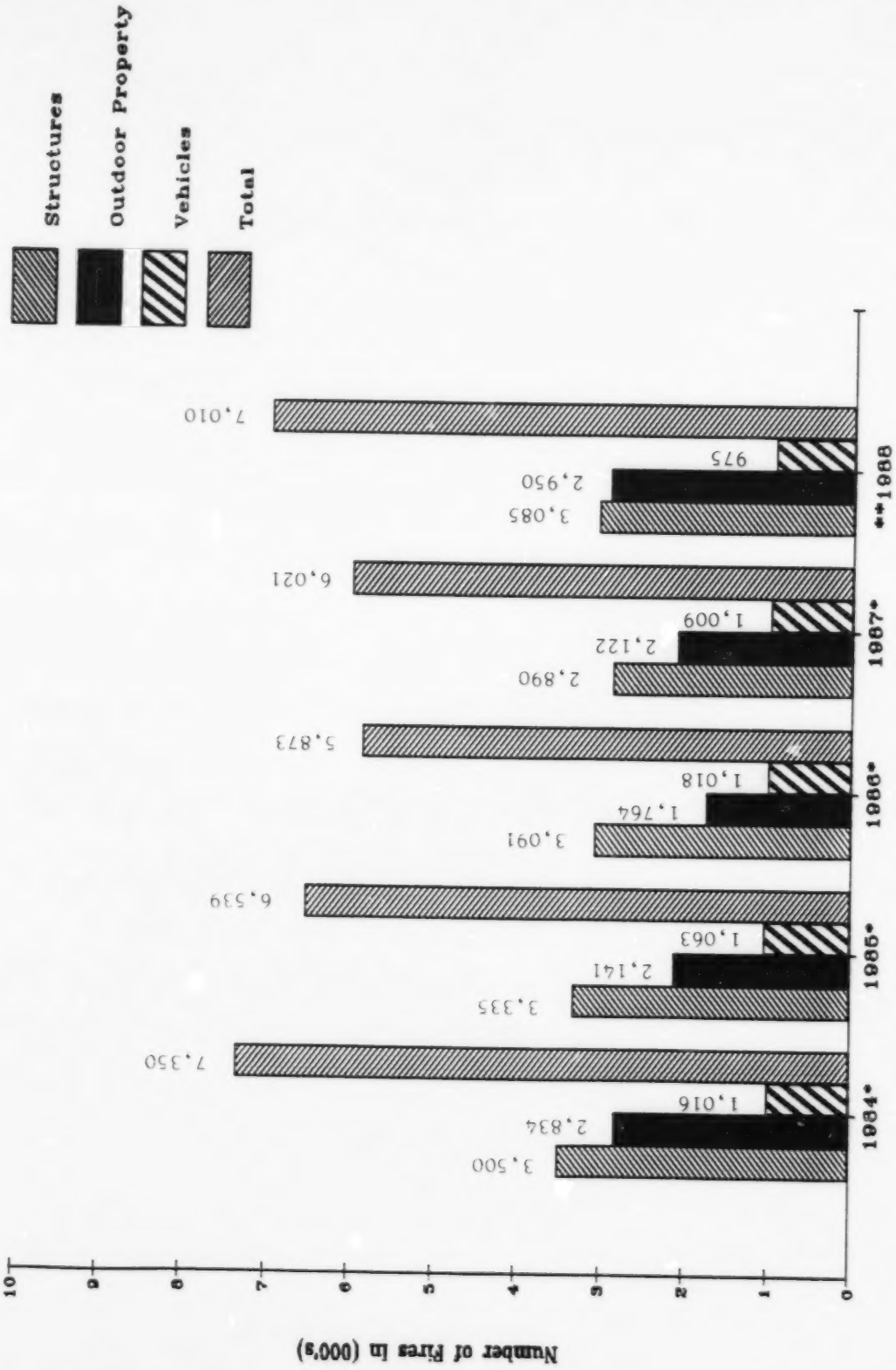
There were 15 fires which exceeded $500,000 in property damage. Although they account for less than .25% of all fires, they were responsible for $17.2 million loss or 28.5% of the province's annual dollar loss. Six of these fires were a result of arson or suspected arson and caused a $5.8 million loss.

One and two family dwellings accounted for 1,419 fires representing 20% of all fires in the province resulting in a loss of $15.2 million. A further 429 or 6% of fires were in apartment buildings with a loss of $4.5 million. These two residential categories accounted for 23 deaths, 173 injuries, 26% of all fires and 32% of the total dollar loss in Manitoba.

During 1988 there were 923 fire investigations conducted by staff and local police authorities. Of these, 439 were in metro Winnipeg, 59 were in urban centers and 425 were in rural Manitoba. In conclusion, 390 or 42% were found to be accidental followed by 311 or 34% being incendiary, vandalism or undetermined suspicious, 218 or 24% were undetermined and four are still under investigation.

The Fire Commissioner's Office takes this opportunity to express our sincere thanks for the support and cooperation of the various organizations and agencies who assist us in carrying out our responsibilities.

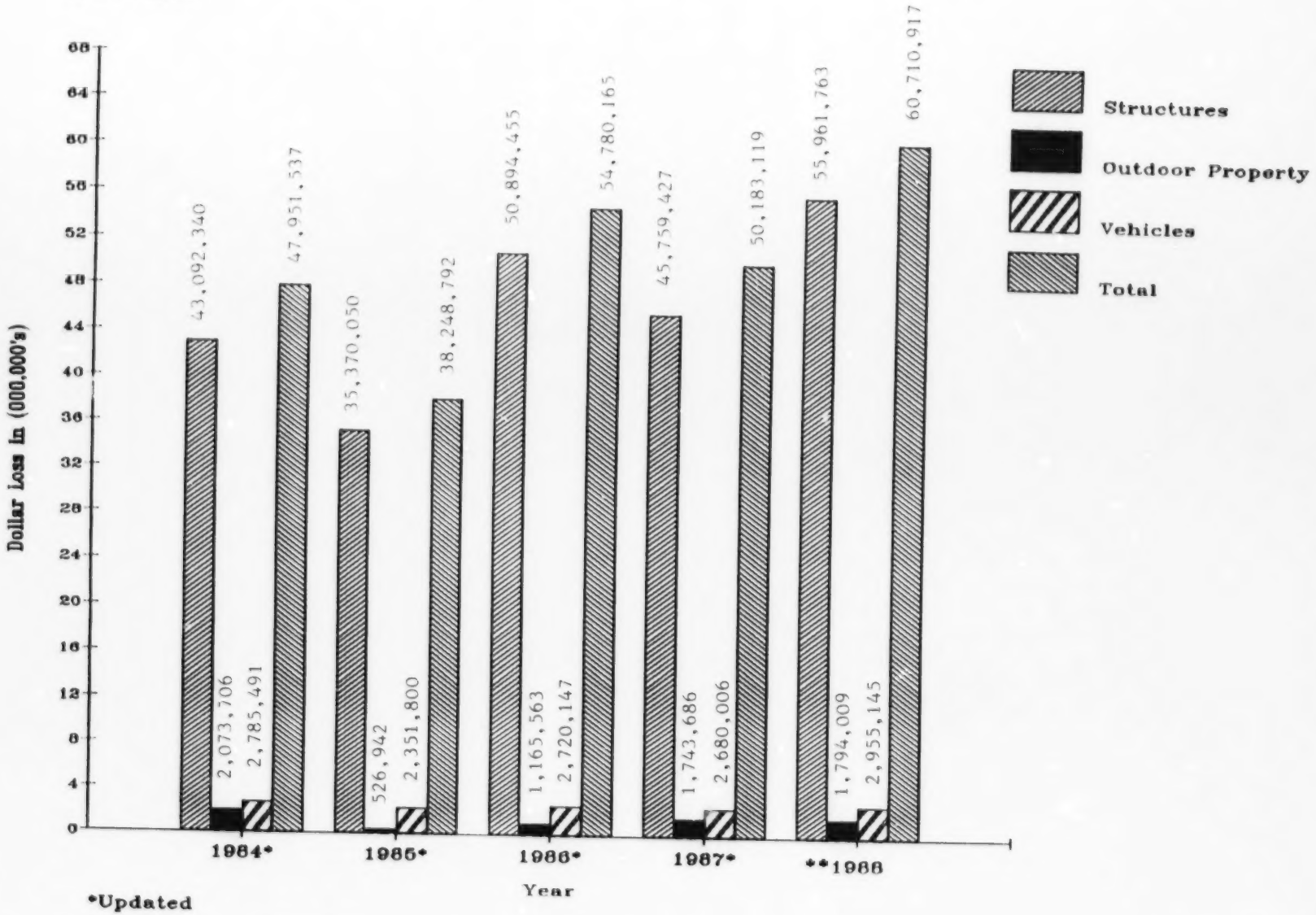
Chart No. 1
Comparative Chart of the Total Number of Fires in Manitoba, 1984 - 1988



*Updated
**Preliminary Fire Loss

Chart No. 2

Comparative Chart of the Total Dollar Loss in Manitoba, 1984 - 1988



*Updated

**Preliminary Fire Loss

Table No. 1

Distribution of Fires by Amount of Dollar Loss, 1988

Amount of Dollar Loss Minimum	Maximum	Number of Fires	Percentage of Total	Dollar Loss	Percentage of Total
Less than	100.00	3,224	45.99%	$ 9,924	.02%
100.00 to	999.99	1,495	21.33	522,186	.86
1,000.00 to	9,999.99	1,492	21.28	4,503,782	7.42
10,000.00 to	49,999.99	551	7.86	12,440,259	20.49
50,000.00 to	249,999.99	213	3.04	19,671,886	32.40
250,000.00 and greater		35	.50	23,562,880	38.81
Total		7,010	100.00%	$60,710,917	100.00%

Table No. 2

Fire Losses by Month, 1988

Month	Number of Fires	Percentage of Total	Dollar Loss	Percentage of Total
January	439	6.26%	$12,741,251	20.98%
February	400	5.71	4,301,602	7.09
March	418	5.96	3,182,172	5.24
April	1,376	19.63	4,886,922	8.05
May	818	11.67	5,355,196	8.82
June	723	10.31	5,159,645	8.50
July	523	7.46	4,194,487	6.91
August	600	8.56	2,724,554	4.49
September	472	6.73	2,399,850	3.95
October	539	7.69	5,240,044	8.63
November	342	4.88	4,073,763	6.71
December	360	5.14	6,451,431	10.63
Total	7,010	100.00%	$60,710,917	100.00%

Chart No. 3

Number of Fires by Day of Week, 1988

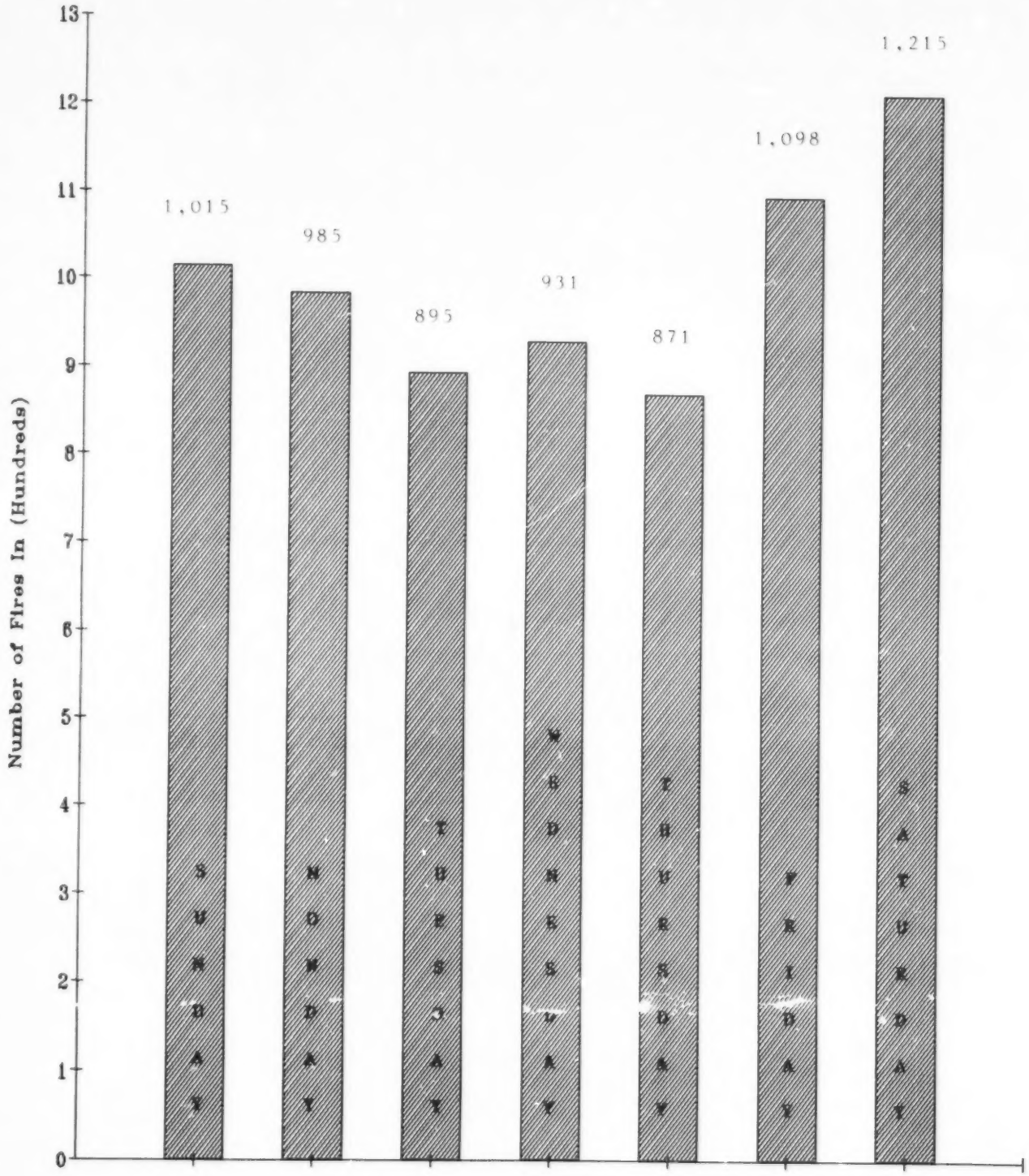


Chart No. 4

Dollar Loss by Day of Week, 1988

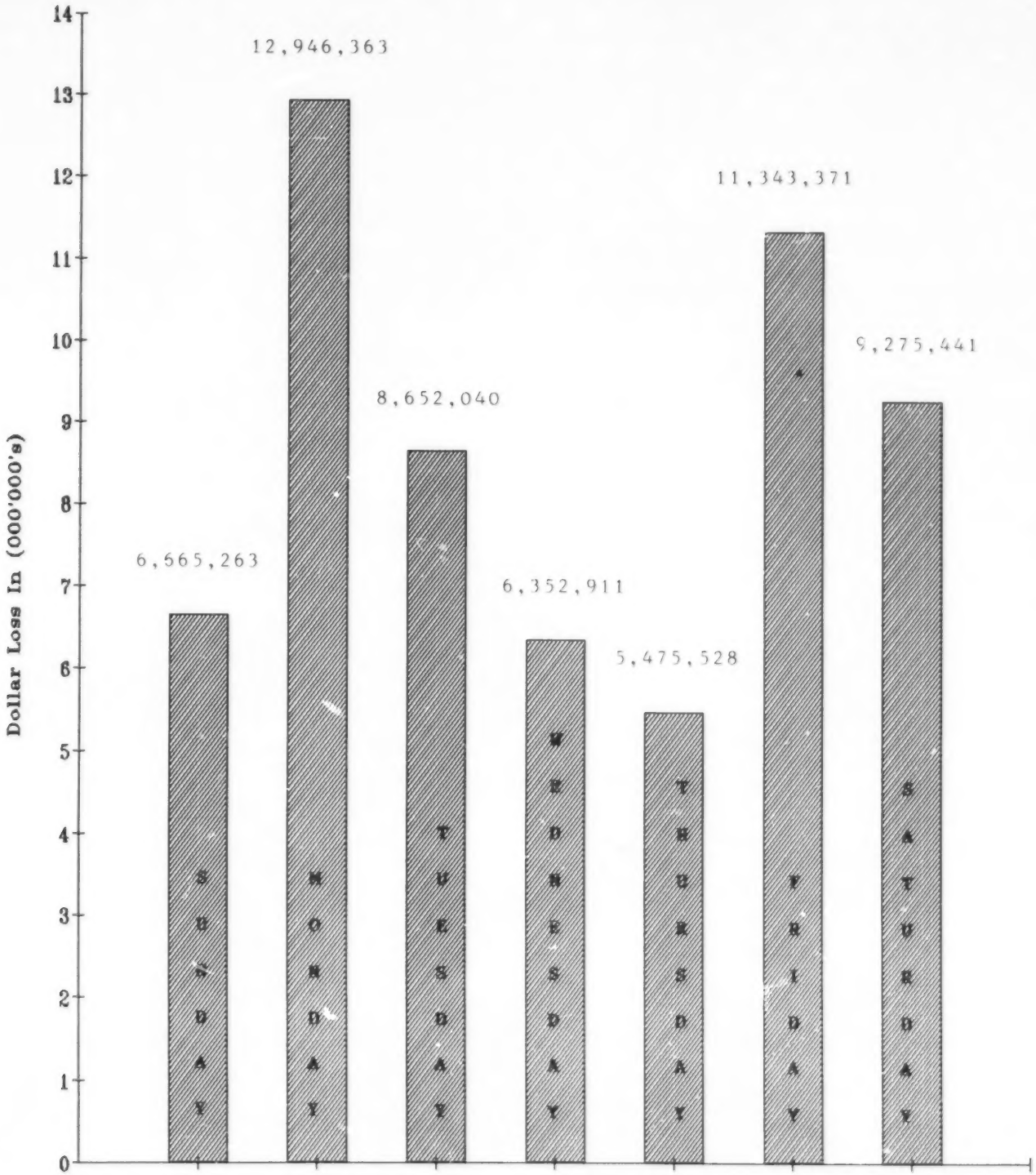


Chart No. 5

Number of Fires by Hour of Day, 1988

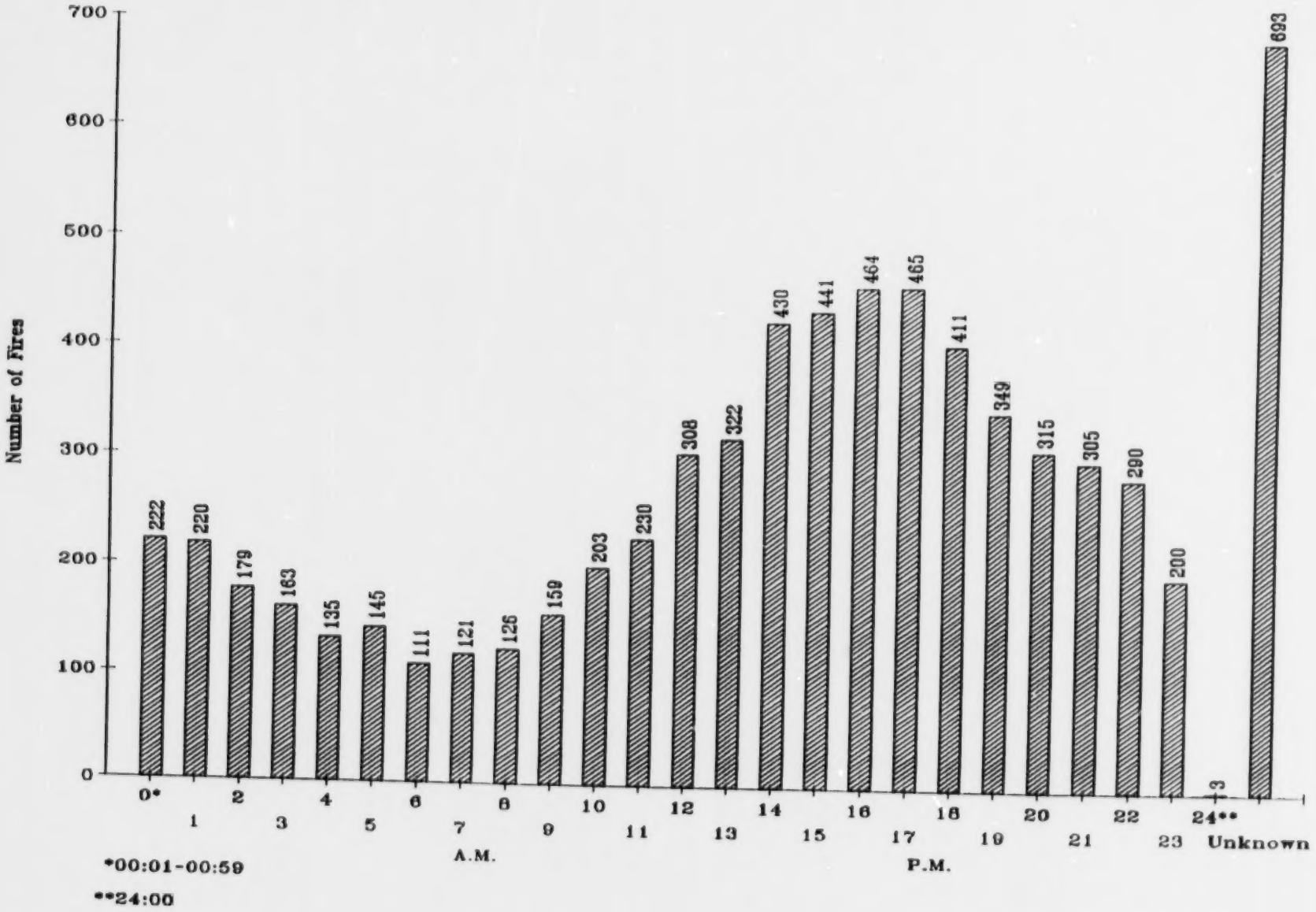


Chart No. 6

Dollar Loss by Hour of Day, 1988

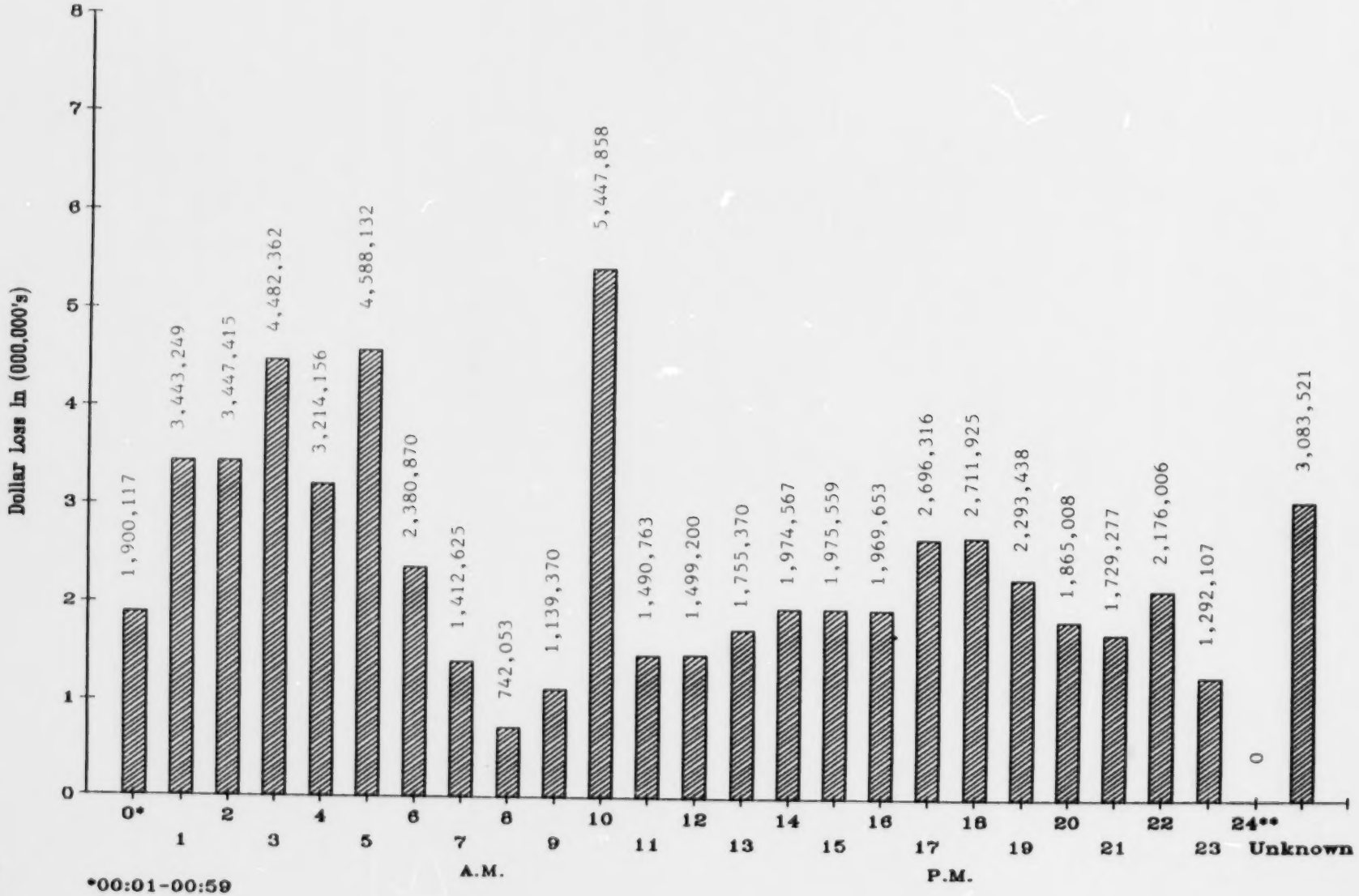


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Table No. 3
Number of Fires Resulting in Death and Details of Fatalities, 1979-1988

Year	Number of Fatal Fires	Men	Women	Children[1]	Total Fatalities
1979	32	24	6	14	44
1980	27	13	11	12	36
1981	36	25	15	12	52
1982	30	15	13	11	39
1983	36	26	9	15	50
1984	22	13	9	11	33
1985	26	22	8	8	38
1986	25	13	13	7	33
1987	23	15	3	8	26
1988	22	14	4	12	30

[1] *Fifteen years of age and under*

Table No. 4
Breakdown of Fire Fatalities by Property Classification, 1988

Property Classification	Men	Women	Children	Total	Percent
Residential:					
One and Two Family Residences, Duplex	9	3	9	21	70.00%
Apartment, Condominium	1	1	-	2	6.67
Rooming House	2	-	-	2	6.67
Mobile Home	-	-	1	1	3.33
Tent	-	-	2	2	6.67
Hotel	1	-	-	1	3.33
Motor Vehicle	1	-	-	1	3.33
Total	14	4	12	30	100.00%

Table No. 5
Fire Fatalities by Age and Sex, 1988

	Five Years and Under	6-15	16-25	26-35	36-45	46-55	56-65	Over 65	Unknown	Total
Male	3	4	3	4	3	1	1	2	-	21
Female	4	1	1	1	-	-	-	2	-	9
Total	7	5	4	5	3	1	1	4	-	30

Table No. 6
Number of Fire Injuries, 1988

	Men	Women	Children	Total
Injuries	232	42	32	306

Table No. 7
Fire Injuries by Age and Sex, 1988

	Five Years and Under	6-15	16-25	26-35	36-45	46-55	56-65	Over 65	Unknown*	Total
Male	8	11	23	71	48	38	10	5	39	253
Female	4	4	7	11	4	2	1	9	11	53
Total	12	15	30	82	52	40	11	14	50	306

**Children - 2 Male 3 Female*

Chart No. 7

Fire Fatalities by Hour of Day, 1988

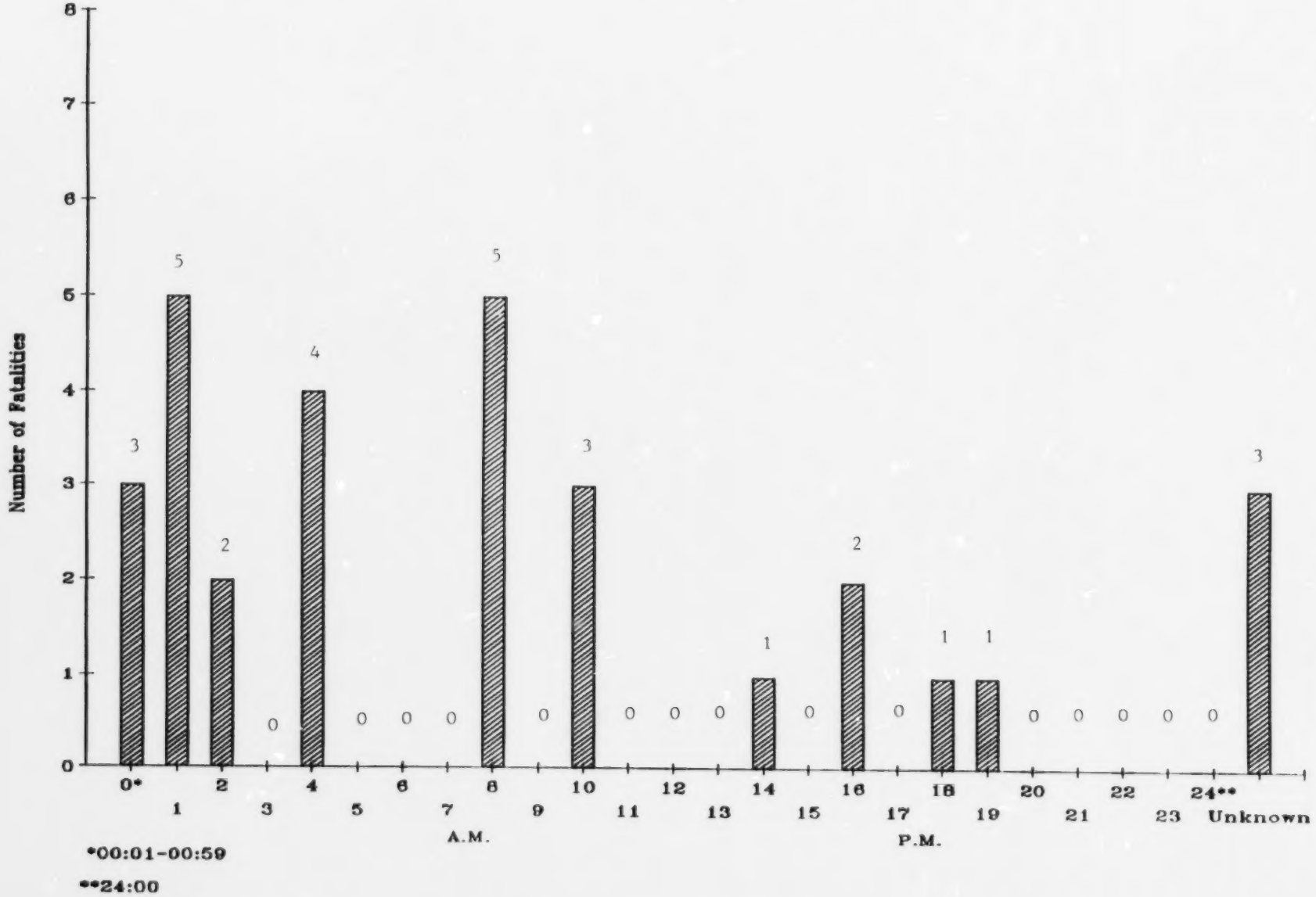


Chart No. 8

Fire Injuries by Hour of Day, 1988

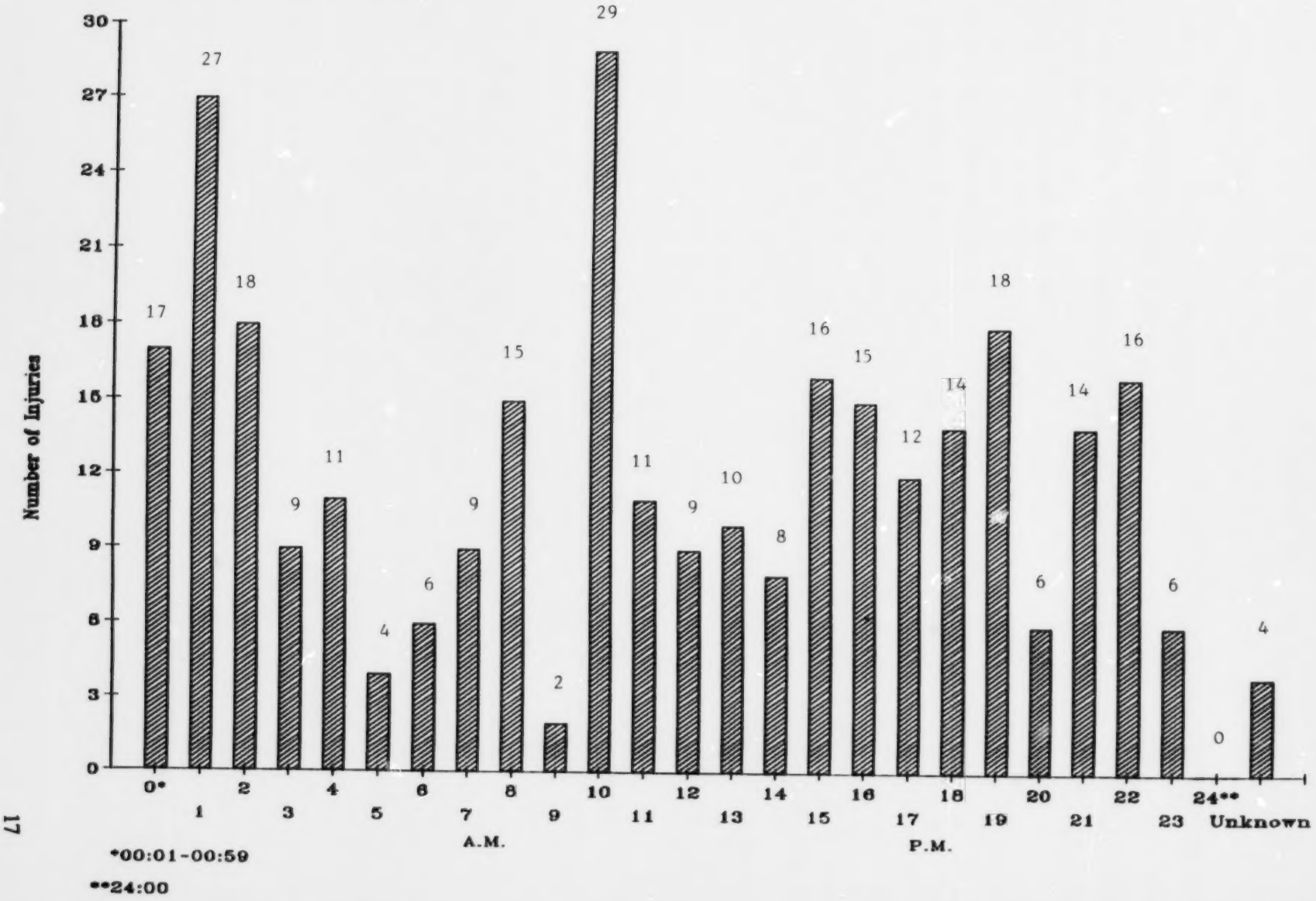


Table No. 8

Breakdown of Fire Fatalities by Act or Omission, 1988

Act or Omission	Men	Women	Children	Total	Percent
Incendiary or Set Fire	1	-	-	1	3.33%
Misuse of Source of Ignition	-	-	2	2	6.67
Misuse of Material Ignited	-	-	1	1	3.33
Mechanical, Electrical Failure Malfunction	-	-	1	1	3.33
Construction, Design or Installation Deficiency	1	1	-	2	6.67
Misuse of Equipment	-	-	-	-	-
Human Failing	2	1	4	7	23.33
Vehicle Accident	-	-	-	-	-
Undetermined	10	2	4	16	53.34
Total	14	4	12	30	100.00%

Table No. 8(a)

Breakdown of Fire Injuries by Act or Omission, 1988

Act or Omission	Fire Fighters	Men	Women	Children	Total
Incendiary or Set Fire	37	5	6	4	52
Misuse of Source of Ignition	14	23	6	9	52
Misuse of Material Ignited	2	4	-	2	8
Mechanical Electrical Failure Malfunction	19	14	6	2	41
Construction, Design or Installation Deficiency	3	-	-	-	3
Misuse of Equipment	1	-	-	-	1
Human Failing	5	23	18	8	54
Vehicle Accident	1	-	-	-	1
Undetermined	59	23	5	7	94
Total	141	92	41	32	306

Table No. 9

Circumstances Contributing to Fire Casualties, 1988

Condition of Casualty at Time of Fire	Fatalities	Injuries
Not applicable	2	212
Asleep at time of fire	9	23
Bedridden or other physical or mental handicap	1	2
Impairment by Alcohol	7	3
Impairment by Drugs	-	-
Under restraint or detention	-	-
Too young to act	3	4
Senile	-	-
Left unattended (children)	3	9
Unclassified or unknown	5	53
	30	**306**

Action of Casualty at Time of Fire	Fatalities	Injuries
Not applicable	10	167
Injured while attempting to escape	2	24
Over-exertion, heart attack, etc.	-	3
Voluntarily entered or remained for rescue purposes	-	5
Voluntarily entered or remained for fire fighting	-	48
Voluntarily entered or remained to save personal property	-	3
Loss of judgement; panic	-	3
Received delayed warning	-	-
Parents or guardian injured	-	1
Unclassified or unknown	18	52
	30	**306**

Ignition of Clothing at Time of Fire	Fatalities	Injuries
Not applicable	15	249
Outer clothing	1	13
Sleepwear	-	1
Underclothing	-	-
Costume	-	1
Bedding or bed linen; mattress or pillow	-	4
Upholstered furniture	1	4
Unclassified or unknown	13	34
	30	**306**

Table No. 9 (continued)

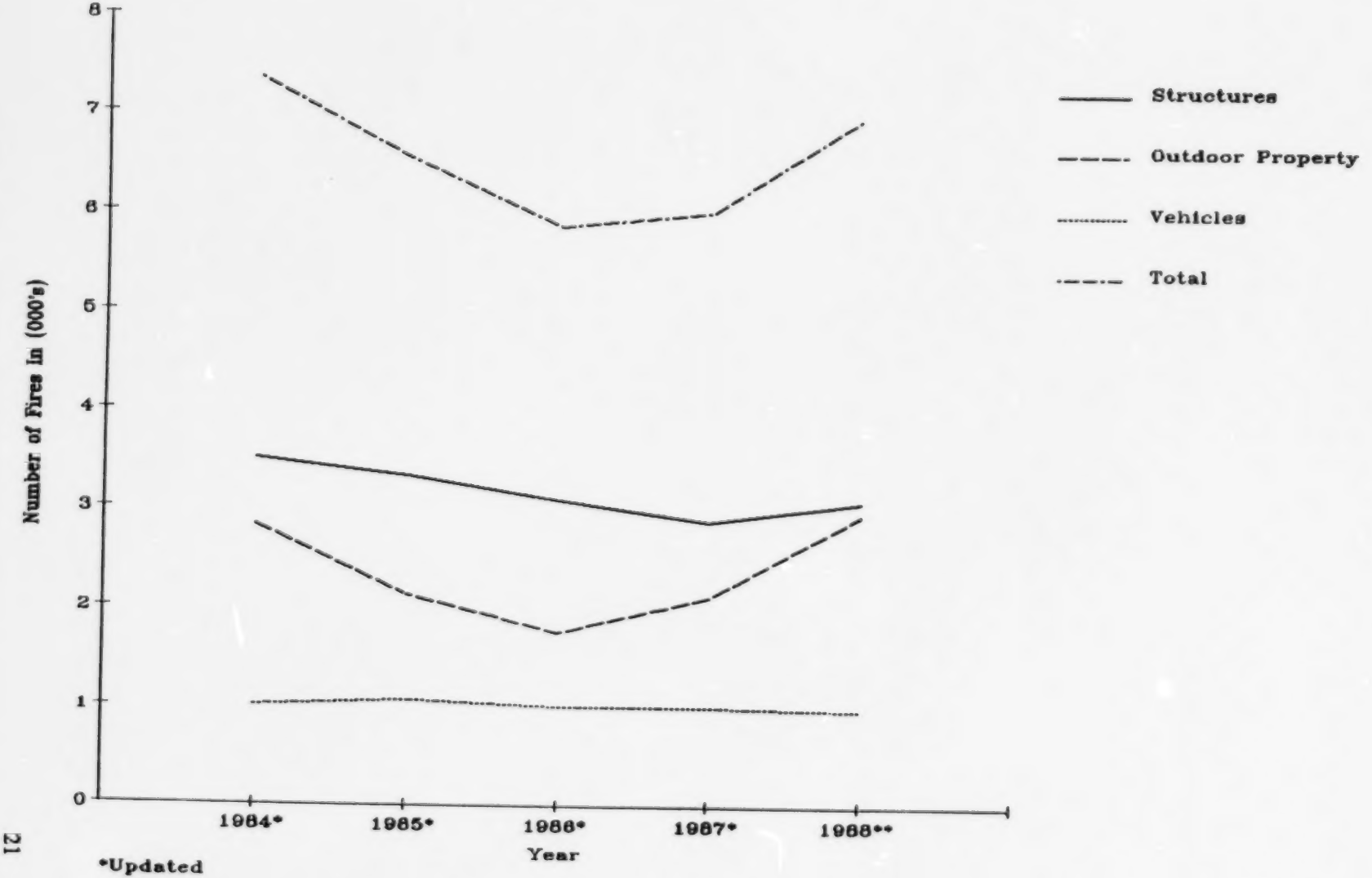
Circumstances Contributing to Fire Casualties, 1988

Type of Fabric or Material Ignited	Fatalities	Injuries
Not applicable	10	231
Cotton	-	5
Wool	-	-
Other natural fibre	-	-
Rayon (viscose)	-	-
Other synthetic fibre	2	4
Mixture fibres	1	7
Rubber	-	8
Plastic foam	-	-
Unclassified or unknown	17	51
	30	**306**

Cause of Failure to Escape	Fatalities	Injuries
Not applicable	6	240
Trapped by: rapid spread of fire/smoke through vertical openings; stairways, elevators	1	1
Trapped by: rapid spread of fire/smoke through horizontal openings	5	6
High flame spread of combustible interior finish of walls, ceilings, or floors	2	-
Building collapse	-	1
Falling debris	-	-
Explosion	-	4
Exit blocked or obstructed by fire	2	1
Outdoor fires, include forest and bush	-	3
Unclassified or unknown	14	50
	30	**306**

Chart No. 9

Comparative Chart of the Total Number of Fires in Manitoba, 1984 - 1988



*Updated

**Preliminary Fire Loss

Table No. 10

Losses by Major Property Classifications, 1988

Property Classification	Number of Fires	Percent	Amount	Percent
ASSEMBLY				
Theatre, Studio, Auditorium	1	.01%	$ 275,000	.45%
Amusement and Recreation Place	30	.43	356,823	.59
School, College, University	32	.46	4,247,200	7.00
Church, Court Room, Funeral Parlour	12	.17	1,373,906	2.26
Social, Sport Club	9	.13	777,851	1.28
Library, Museum	2	.03	2,000	.01
Eating Establishment	46	.66	718,638	1.18
Passenger Terminal, Station	1	.01	1,000	-
Miscellaneous	1	.01	700	-
Sub-total	**134**	**1.91%**	**$ 7,753,118**	**12.77%**
INSTITUTIONAL				
Prison, Jail, Reformatory	3	.04	37,000	.06
Home for the Aged	14	.20	11,100	.02
Children's Hospital	1	.01	-	-
Hospital, Sanitorium, Clinic	15	.22	3,002,450	4.94
Miscellaneous	-	-	-	-
Sub-total	**33**	**.47%**	**$ 3,050,550**	**5.02%**
RESIDENTIAL				
Family Residence, Duplex	1,419	20.24	15,174,555	24.98
Apartment	429	6.12	4,479,076	7.38
Rooming, Boarding House	30	.43	643,032	1.06
Hotel	35	.50	907,634	1.50
Motor Hotel	8	.11	46,988	.08
Dormitory	5	.07	48,100	.08
Mobile Home	63	.90	987,101	1.63
Miscellaneous	2	.03	500	-
Sub-total	**1,991**	**28.40%**	**$22,286,986**	**36.71%**

Table No. 10 (continued)
Losses by Major Property Classifications, 1988

Property Classification	Number of Fires	Percent	Amount	Percent
BUSINESS AND PERSONAL SERVICES				
Office	24	.35%	$ 1,102,658	1.82%
Personal Service	1	.01	5,000	.01
Electronic Equipment	-	-	-	-
Miscellaneous	1	.01	1,187,500	1.95
Sub-total	**26**	**.37%**	**$ 2,295,158**	**3.78%**
MERCANTILE				
Food, Beverage Sale	15	.21	2,192,915	3.61
Textile, Wearing Apparel Sale	5	.07	81,500	.13
Furniture, Appliance, Hardware Sale	4	.06	103,585	.17
Books, Newspapers, Drugs, Specialties	9	.13	118,245	.19
Recreation, Hobby Supplies	3	.04	616,299	1.02
Repair Shop, Laundry, Dry Cleaner	6	.09	155,310	.26
Motor Vehicle, Boat, Sales and Service	32	.46	1,053,854	1.74
Department, Variety Store	8	.11	341,000	.56
Miscellaneous	4	.06	5,567	.01
Sub-total	**86**	**1.23%**	**$ 4,668,275**	**7.69%**
INDUSTRIAL MANUFACTURING PROPERTIES				
Chemical, Petroleum, Paints, Plastics	6	.09	147,754	.24
Wood, Furniture, Paper, Printing	22	.31	1,156,538	1.91
Metal, Metal Products, Electrical Appliances	21	.30	616,161	1.02
Food Processing	15	.21	346,350	.57
Beverages, Tobacco, Soap, Margarine	-	-	-	-
Textiles	1	.01	300	-
Footwear, Wearing Apparel	4	.06	937,100	1.54
Vehicles and Related Equipment	4	.06	19,000	.03
Miscellaneous	7	.10	38,197	.06
Sub-total	**80**	**1.14%**	**$ 3,261,400**	**5.37%**

Table No. 10 (continued)

Losses by Major Property Classifications, 1988

Property Classificaiton	Number of Fires	Percent	Amount	Percent
INDUSTRIAL STORAGE PROPERTIES				
Agricultural Products	23	.33%	$ 1,799,107	2.96%
Textiles, Fibres, Clothing	2	.03	25	-
Processed Food, Beverages	1	.01	250	-
Flammable Liquids, Gasses, Petroleum Products	2	.03	50,500	.08
Wood Furniture, Paper and Products	3	.04	201,000	. 33
Chemicals, Plastics, Paints	2	.03	22,000	.04
Metal Goods, Machinery, Electrical Appliances	2	.03	40,250	.07
Vehicles	183	2.61	1,544,307	2.55
Miscellaneous	18	.26	614,885	1.01
Sub-total	**236**	**3.37%**	**$ 4,272,324**	**7.04%**
SPECIAL PROPERTY-TRANSPORTATION EQUIPMENT				
Outdoor Property	2,946	42.02	1,787,309	2.94
Pier, Wharf	4	.06	6,700	.01
Under Construction/Demolition: Vacant	108	1.54	2,432,646	4.01
Watercraft	6	.09	22,370	.04
Rail Transport Vehicle and Equipment	24	.34	254,000	.42
Ground Transport Vehicle	840	11.98	2,015,646	3.32
Aircraft	2	.03	23,380	.04
Special Vehicle	103	1.47	639,749	1.05
Miscellaneous	-	-	-	-
Sub-total	**4,033**	**57.53%**	**$ 7,181,800**	**11.83%**
MISCELLANEOUS PROPERTIES				
Laboratories	7	.10	17,500	.03
Farm Facilities	223	3.18	4,802,875	7.91
Miscellaneous Outbuildings	98	1.40	742,681	1.22
Utility	58	.83	70,050	.12
Cement, Glass, Pottery Manufacturing	1	.01	100	-
Mining, Quarrying	2	.03	302,500	.50
Communications	-	-		
Nucleonics	-	-	-	-
Miscellaneous	2	.03	5,600	.01
Sub-total	**391**	**5.58%**	**$ 5,941,306**	**9.79%**
Total	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 10(a)

Breakdown of Area of Origin by Property Classification, 1988

Area of Origin of Fire	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Means of Egress	19	14.18%	$ 52,820	.68%	5	15.15%	$ 8,050	.26%
Assembly, Sales Area	18	13.43	4,313,236	55.64	3	9.09	700	.02
Function Area	50	37.31	696,022	8.98	18	54.55	4,700	.15
Storage Area	18	13.43	559,690	7.22	2	6.06	3,000,000	98.35
Service Facilities	3	2.24	5,000	.06	-	-	-	-
Service and Equipment Area	6	4.48	279,500	3.61	2	6.06	100	-
Structural Area	14	10.45	1,790,150	23.09	1	3.03	-	-
Vehicle Area	1	.75	1,000	.01	-	-	-	-
Outside Area	3	2.24	5,700	.07	1	3.03	-	-
Undetermined/Unclassified	2	1.49	50,000	.64	1	3.03	37,000	1.22
Total	**134**	**100.00%**	**$7,753,118**	**100.00%**	**33**	**100.00%**	**$3,050,550**	**100.00%**

Table No. 10(b)

Breakdown of Area of Origin by Property Classification, 1988

Area of Origin of Fire	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Means of Egress	100	5.02%	$ 942,576	4.23%	3	11.54%	$ 750,300	32.69%
Assembly, Sales Area	258	12.96	3,535,623	15.86	-	-	-	-
Function Area	997	50.08	7,219,416	32.39	10	38.45	281,000	12.24
Storage Area	137	6.88	2,372,884	10.65	5	19.23	1,400	.06
Service Facilities	178	8.94	872,590	3.92	1	3.85	5,000	.22
Service and Equipment Area	54	2.71	1,038,704	4.66	-	-	-	-
Structural Area	137	6.88	2,925,193	13.13	3	11.54	9,138	.40
Vehicle Area	8	.40	88,000	.39	1	3.85	60,000	2.61
Outside Area	29	1.46	624,899	2.80	-	-	-	-
Undetermined/Unclassified	93	4.67	2,667,101	11.97	3	11.54	1,188,320	51.78
Total	**1,991**	**100.00%**	**$22,286,986**	**100.00%**	**26**	**100.00%**	**$2,295,158**	**100.00%**

Table No. 10(c)

Breakdown of Area of Origin by Property Classification, 1988

Area of Origin of Fire	Mercantile No.	Percent	Amount	Percent	Industrial Manufacturing Properties No.	Percent	Amount	Percent
Means of Egress	-	-%	$ -	-%	1	1.25%	$ 1,000	.03%
Assembly, Sales Area	9	10.47	217,567	4.66	1	1.25	-	-
Function Area	18	20.92	851,835	18.25	26	32.50	248,751	7.63
Storage Area	13	15.12	1,982,800	42.47	13	16.25	227,483	6.98
Service Facilities	8	9.30	12,389	.27	7	8.75	32,348	.99
Service and Equipment Area	14	16.28	195,649	4.19	20	25.00	2,030,068	62.24
Structural Area	16	18.60	835,179	17.89	11	13.75	716,750	21.98
Vehicle Area	2	2.33	50,000	1.07	-	-	-	-
Outside Area	2	2.33	10,500	.22	-	-	-	-
Undetermined/Unclassified	4	4.65	512,356	10.98	1	1.25	5,000	.15
Total	**86**	**100.00%**	**$4,668,275**	**100.00%**	**80**	**100.00%**	**$3,261,400**	**100.00%**

Table No. 10(d)

Breakdown of Area of Origin by Property Classification, 1988

Area of Origin of Fire	Industrial Storage Properties No.	Percent	Amount	Percent	Special Property - Transportation Equipment No.	Percent	Amount	Percent
Means of Egress	2	.85%	$ 50,681	1.19%	6	.15%	$ 70,368	.98%
Assembly, Sales Area	-	-	-	-	9	.22	87,660	1.22
Function Area	3	1.27	15,750	.37	21	.52	128,500	1.79
Storage Area	180	76.28	3,495,459	81.81	28	.69	185,246	2.58
Service Facilities	6	2.54	96,820	2.27	-	-	-	-
Service and Equipment Area	9	3.81	119,226	2.79	1	.02	-	-
Structural Area	13	5.51	18,307	.43	17	.42	1,126,000	15.68
Vehicle Area	10	4.24	42,847	1.00	944	23.42	2,782,127	38.74
Outside Area	9	3.81	280,198	6.56	2,958	73.35	1,812,868	25.24
Undetermined/Unclassified	4	1.69	153,036	3.58	49	1.21	989,031	13.77
Total	**236**	**100.00%**	**$4,272,324**	**100.00%**	**4,033**	**100.00%**	**$7,181,800**	**100.00%**

Table No. 10(e)

Breakdown of Area of Origin by Property Classification, 1988

Area of Origin of Fire	Miscellaneous Properties No.	Percent	Amount	Percent	Totals of All Property Classifications No.	Percent	Amount	Percent
Means of Egress	2	.51%	$ 3,200	.05%	138	1.97%	$ 1,878,995	3.09%
Assembly, Sales Area	7	1.79	2,700	.05	305	4.35	8,157,486	13.44
Function Area	7	1.79	32,000	.54	1,150	16.41	9,477,974	15.62
Storage Area	119	30.43	3,633,325	61.15	515	7.35	15,458,287	25.46
Service Facilities	2	.51	3,100	.05	205	2.92	1,027,247	1.69
Service and Equipment Area	12	3.07	913,217	15.37	118	1.68	4,576,464	7.54
Structural Area	19	4.86	321,875	5.42	231	3.30	7,742,592	12.75
Vehicle Area	3	.77	11,602	.20	969	13.82	3,035,576	5.00
Outside Area	211	53.97	889,386	14.97	3,213	45.83	3,623,551	5.97
Undetermined/Unclassified	9	2.30	130,901	2.20	166	2.37	5,732,745	9.44
Total	**391**	**100.00%**	**$5,941,306**	**100.00%**	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 11

Breakdown of Act or Ommission by Property Classification, 1988

Act or Omission	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	58	43.28%	$4,593,878	59.26%	6	18.19%	$ 40,000	1.31%
Misuse of Source of Ignition	10	7.46	52,170	.67	5	15.15	200	.01
Misuse of Material Ignited	4	2.99	184,851	2.38	3	9.09	2,000	.07
Mechanical, Electrical Failure, Manlfunction	33	24.63	717,930	9.26	7	21.21	5,650	.19
Construction, Design or Installation Deficiency	-	-	-	-	1	3.03	-	-
Misuse of Equipment	-	-	-	-	1	3.03	-	-
Human Failing	13	9.70	24,855	.32	7	21.21	2,600	.09
Vehicle Accident	-	-	-	-	-	-	-	-
Unclassified	2	1.49	85,000	1.10	2	6.06	3,000,000	98.33
Undetermined/Not Applicable	14	10.45	2,094,434	27.01	1	3.03	100	-
Total	**134**	**100.00%**	**$7,753,118**	**100.00%**	**33**	**100.00%**	**$3,050,550**	**100.00%**

Table No. 11(a)

Breakdown of Act or Ommission by Property Classification, 1988

Act or Omission	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fire	201	10.10%	$ 2,723,648	12.22%	9	34.61%	$1,010,288	44.02%
Misuse of Source of Ignition	326	16.37	3,561,869	15.98	2	7.69	900	.04
Misuse of Material Ignited	52	2.61	670,297	3.01	2	7.69	60,500	2.64
Mechanical, Electrical Failure, Manlfunction	421	21.15	3,507,725	15.74	6	23.08	10,650	.46
Construction, Design or Installation Deficiency	66	3.31	1,064,339	4.78	-	-	-	-
Misuse of Equipment	23	1.16	389,576	1.75	-	-	-	-
Human Failing	583	29.28	2,948,775	13.23	1	3.85	1,300	.06
Vehicle Accident	-	-	-	-	-	-	-	-
Unclassified	85	4.27	1,072,538	4.81	1	3.85	20	-
Undetermined/Not Applicable	234	11.75	6,348,219	28.48	5	19.23	1,211,500	52.78
Total	**1,991**	**100.00%**	**$22,286,986**	**100.00%**	**26**	**100.00%**	**$2,295,158**	**100.00%**

Table No. 11(b)

Breakdown of Act or Omission by Property Classification, 1988

Act or Omission	Mercantile No.	Mercantile Percent	Mercantile Amount	Mercantile Percent	Industrial Manufacturing Properties No.	Industrial Manufacturing Properties Percent	Industrial Manufacturing Properties Amount	Industrial Manufacturing Properties Percent
Incendiary or Set Fires	19	22.09%	$2,268,683	48.61%	8	10.00%	$ 916,177	28.09%
Misuse of Source of Ignition	19	22.09	82,263	1.76	10	12.50	29,950	.92
Misuse of Material Ignited	6	6.98	47,932	1.03	8	10.00	160,958	4.94
Mechanical and Electrical Failure, Malfunction	20	23.25	460,587	9.87	19	23.75	630,002	19.32
Construction, Design or Installation Deficiency	3	3.49	8,111	.17	2	2.50	1,000	.03
Misuse of Equipment	3	3.49	82,861	1.77	3	3.75	9,000	.28
Human Failing	4	4.65	33,510	.72	3	3.75	27,000	.83
Vehicle Accident	1	1.16	3,500	.07	-	-	-	-
Unclassified	2	2.33	62,667	1.34	9	11.25	419,800	12.87
Undetermined/Not Applicable	9	10.47	1,618,161	34.66	18	22.50	1,067,513	32.72
Total	**86**	**100.00%**	**$4,668,275**	**100.00%**	**80**	**100.00%**	**$3,261,400**	**100.00%**

Table No. 11(c)

Breakdown of Act or Omission by Property Classification, 1988

Act or Omission	Industrial Storage Properties No.	Industrial Storage Properties Percent	Industrial Storage Properties Amount	Industrial Storage Properties Percent	Special Property - Transporation Equipment No.	Special Property - Transporation Equipment Percent	Special Property - Transporation Equipment Amount	Special Property - Transporation Equipment Percent
Incendiary or Set Fires	73	30.94%	$ 965,034	22.59%	1,705	42.27%	$1,343,764	18.71%
Misuse of Source of Ignition	18	7.63	251,821	5.89	629	15.60	2,266,461	31.56
Misuse of Material Ignited	13	5.51	111,250	2.60	35	.87	60,805	.85
Mechanical and Electrical Failure, Malfunction	44	18.64	812,987	19.03	253	6.27	830,649	11.57
Construction, Design or Installation Deficiency	9	3.81	74,435	1.74	9	.22	58,900	.82
Misuse of Equipment	3	1.27	1,100	.03	5	.12	200	-
Human Failing	6	2.54	64,585	1.51	97	2.41	179,273	2.50
Vehicle Accident	-	-	-	-	14	.35	43,500	.61
Unclassified	11	4.66	121,860	2.85	152	3.77	40,145	.56
Undetermined/Not Applicable	59	25.00	1,869,252	43.76	1,134	28.12	2,358,103	32.82
Total	**236**	**100.00%**	**$4,272,324**	**100.00%**	**4,033**	**100.00%**	**$7,181,800**	**100.00%**

Table No. 11(d)

Breakdown of Act or Omission by Property Classification, 1988

Act or Omission	Miscellaneous Properties				Totals of All Property Classifications			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Incendiary or Set Fires	63	16.11%	$ 409,466	6.89%	2,142	30.55%	$14,270,938	23.51%
Misuse of Source of Ignition	94	24.04	375,980	6.33	1,113	15.88	6,621,614	10.91
Misuse of Material Ignited	23	5.88	300,357	5.06	146	2.08	1,598,950	2.63
Mechanical and Electrical Failure, Malfunction	53	13.55	1,988,006	33.46	856	12.21	8,964,186	14.77
Construction, Design or Installation Deficiency	3	.77	15,500	.26	93	1.33	1,222,285	2.01
Misuse of Equipment	1	.26	-	-	39	.56	482,737	.80
Human Failing	13	3.32	24,694	.42	727	10.37	3,306,592	5.45
Vehicle Accident	1	.26	2,500	.04	16	.23	49,500	.08
Unclassified	36	9.21	69,680	1.17	300	4.28	4,871,710	8.02
Undetermined/Not Applicable	104	26.60	2,755,123	46.37	1,578	22.51	19,322,405	31.82
Total	**391**	**100.00%**	**$5,941,306**	**100.00%**	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 12

Breakdown of Source of Heat of Ignition by Property Classification, 1988

Source of Heat of Ignition	Assembly No.	Assembly Percent	Assembly Amount	Assembly Percent	Institutional No.	Institutional Percent	Institutional Amount	Institutional Percent
Electrical Distribution Equipment-Aluminum	-	- %	$ -	- %	-	- %	$ -	- %
Heating Equipment	5	3.73	252,351	3.25	-	-	-	-
Cooking Equipment	22	16.42	192,999	2.49	5	15.15	400	.01
Smoker's Material	4	2.99	23,020	.30	4	12.12	200	.01
Electrical Distribution Equipment-Copper	15	11.19	492,986	6.36	3	9.09	100	-
Electrical Appliance and Equipment	5	3.73	7,800	.10	5	15.15	5,650	.19
Other Appliance and Equipment	2	1.49	500	.01	2	6.06	100	-
Open Flame	62	46.27	1,596,759	20.60	7	21.22	2,000	.07
Exposure	1	.75	85,000	1.10	-	-	-	-
Miscellaneous	2	1.49	-	-	4	12.12	3,002,000	98.41
Undetermined/Unclassified	16	11.94	5,101,703	65.79	3	9.09	40,100	1.31
Total	**134**	**100.00%**	**$7,753,118**	**100.00%**	**33**	**100.00%**	**$3,050,550**	**100.00%**

Table No. 12(a)

Breakdown of Source of Heat of Ignition by Property Classification, 1988

Source of Heat of Ignition	Residential No.	Residential Percent	Residential Amount	Residential Percent	Business and Personal Services No.	Business and Personal Services Percent	Business and Personal Services Amount	Business and Personal Services Percent
Electrical Distribution Equipment-Aluminum	2	.10%	$ 24,700	.11%	-	- %	$ -	- %
Heating Equipment	353	17.73	3,589,898	16.11	-	-	-	-
Cooking Equipment	576	28.92	2,566,110	11.51	1	3.85	1,300	.06
Smoker's Material	221	11.10	2,361,251	10.59	1	3.85	900	.04
Electrical Distribution Equipment-Copper	108	5.42	2,145,270	9.63	2	7.69	5,200	.23
Electrical Appliance and Equipment	74	3.72	491,817	2.21	3	11.54	650	.03
Other Appliance and Equipment	74	3.72	118,251	.53	1	[illegible]	5,000	[illegible]
Open Flame	289	14.52	3,091,731	13.87	10	38.45	1,069,488	46.60
Exposure	37	1.86	615,030	2.76	1	3.85	800	.03
Miscellaneous	67	3.37	1,035,332	4.65	2	7.69	320	.01
Undetermined/Unclassified	190	9.54	6,247,596	28.03	5	19.23	1,211,500	52.78
Total	**1,991**	**100.00%**	**$22,286,986**	**100.00%**	**26**	**100.00%**	**$2,295,158**	**100.00%**

Table No. 12(b)

Breakdown of Source of Heat of Ignition by Property Classification, 1988

Source of Heat of Ignition	Mercantile No.	Mercantile Percent	Mercantile Amount	Mercantile Percent	Industrial Manufacturing Properties No.	Industrial Manufacturing Properties Percent	Industrial Manufacturing Properties Amount	Industrial Manufacturing Properties Percent
Electrical Distribution Equipment-Aluminum	-	- %	$ -	- %	-	- %	$ -	- %
Heating Equipment	11	12.79	72,915	1.56	4	5.00	8,000	.25
Cooking Equipment	1	1.16	30,000	.64	6	7.50	5,550	.17
Smoker's Material	5	5.81	1,225	.03	-	-	-	-
Electrical Distribution Equipment-Copper	7	8.14	477,100	10.22	9	11.25	113,000	3.46
Electrical Appliance and Equipment	5	5.81	10,825	.23	7	8.75	211,654	6.49
Other Appliance and Equipment	6	6.98	14,800	.32	6	7.50	16,800	.52
Open Flame	32	37.22	2,264,872	48.51	12	15.00	138,827	4.26
Exposure	1	1.16	7,000	.15	-	-	-	-
Miscellaneous	8	9.30	70,377	1.51	18	22.50	887,706	27.22
Undetermined/Unclassified	10	11.63	1,719,161	36.83	18	22.50	1,879,863	57.63
Total	**86**	**100.00%**	**$4,668,275**	**100.00%**	**80**	**100.00%**	**$3,261,400**	**100.00%**

Table No. 12(c)

Breakdown of Source of Heat of Ignition by Property Classification, 1988

Source of Heat of Ignition	Industrial Storage Properties No.	Industrial Storage Properties Percent	Industrial Storage Properties Amount	Industrial Storage Properties Percent	Special Property - Transportation Equipment No.	Special Property - Transportation Equipment Percent	Special Property - Transportation Equipment Amount	Special Property - Transportation Equipment Percent
Electrical Distribution Equipment-Aluminum	-	- %	$ -	- %	1	.02%	$ 11,200	.16%
Heating Equipment	24	10.17	318,929	7.47	18	.45	119,100	1.66
Cooking Equipment	3	1.27	9,359	.22	46	1.14	49,418	.69
Smoker's Material	2	.85	11,500	.27	32	.79	14,450	.20
Electrical Distribution Equipment-Copper	26	11.02	295,872	6.93	94	2.33	287,984	4.01
Electrical Appliance and Equipment	12	5.08	223,728	5.24	16	.40	100,420	1.40
Other Appliance and Equipment	4	1.69	37,400	.88	225	5.58	350,990	4.89
Open Flame	66	27.97	504,327	11.79	2,230	55.30	3,284,732	45.73
Exposure	15	6.36	273,480	6.40	197	4.88	308,612	4.30
Miscellaneous	20	8.47	437,804	10.25	48	1.19	114,260	1.59
Undetermined/Unclassified	64	27.12	2,159,925	50.55	1,126	27.92	2,540,634	35.37
Total	**236**	**100.00%**	**$4,272,324**	**100.00%**	**4,033**	**100.00%**	**$7,181,800**	**100.00%**

Table No. 12(d)

Breakdown of Source of Heat of Ignition by Property Classification, 1988

Source of Heat of Ignition	Miscellaneous Properties No.	Percent	Amount	Percent	Totals of All Property Classifications No.	Percent	Amount	Percent
Electrical Distribution Equipment-Aluminum	1	.26%	$ 200	- %	4	0.06%	$ 36,100	.06%
Heating Equipment	13	3.32	147,171	2.48	428	6.11	4,508,364	7.43
Cooking Equipment	2	.51	2,100	.04	662	9.44	2,857,236	4.71
Smoker's Material	5	1.28	44,500	.75	274	3.91	2,457,046	4.05
Electrical Distribution Equipment-Copper	43	11.00	1,514,385	25.49	307	4.38	5,331,897	8.78
Electrical Appliance and Equipment	17	4.35	235,874	3.97	144	2.05	1,288,418	2.12
Other Appliance and Equipment	8	2.05	28,350	.48	328	4.68	572,191	.94
Open Flame	114	29.15	301,681	5.08	2,822	40.25	12,254,417	20.18
Exposure	57	14.58	288,311	4.85	309	4.41	1,578,233	2.60
Miscellaneous	33	8.44	478,819	8.06	202	2.88	6,026,618	9.93
Undetermined/Unclassified	98	25.06	2,899,915	48.80	1,530	21.83	23,800,397	39.20
Total	**391**	**100.00%**	**$5,941,306**	**100.00%**	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 13

Breakdown of Fuel or Energy by Property Classification, 1988

Fuel or Energy	Assembly No.	Assembly Percent	Assembly Amount	Assembly Percent	Institutional No.	Institutional Percent	Institutional Amount	Institutional Percent
Coal, Wood	12	8.96%	$ 63,242	.82%	1	3.03%	$ -	- %
Fuel Oil	-	-	-	-	-	-	-	-
Gasoline	-	-	-	-	-	-	-	
Natural Gas	7	5.22	36,239	.47	1	3.03	100	-
Propane	5	3.73	15,577	.20	-	-	-	-
Smoker's Material	3	2.24	17,520	.23	4	12.12	200	.01
Electricity	38	28.36	936,420	12.08	9	27.27	5,650	.19
Lightning	2	1.49	5,500	.07	-	-	-	-
Unclassified	-	-	-	-	5	15.15	2,000	.07
Undetermined/Not Applicable	67	50.00	6,678,620	86.13	13	39.40	3,042,600	99.73
Total	**134**	**100.00%**	**$7,753,118**	**100.00%**	**33**	**100.00%**	**$3,050,550**	**100.00%**

Table No. 13(a)

Breakdown of Fuel or Energy by Property Classification, 1988

Fuel or Energy	Residential No.	Residential Percent	Residential Amount	Residential Percent	Business and Personal Services No.	Business and Personal Services Percent	Business and Personal Services Amount	Business and Personal Services Percent
Coal, Wood	338	16.98%	$ 2,831,348	12.70%	2	7.69%	$ 100	- %
Fuel Oil	9	.45	84,690	.38	-	-	-	-
Gasoline	3	.15	11,635	.05	-	-	-	-
Natural Gas	24	1.21	308,972	1.39	-	-	-	-
Propane	71	3.57	1,036,695	4.65	1	3.85	60,000	2.61
Smoker's Material	224	11.25	2,367,891	10.62	1	3.85	900	.04
Electricity	735	36.92	5,449,769	24.45	8	30.76	12,450	.54
Lightning	60	3.01	909,773	4.08	1	3.85	20	-
Unclassified	21	1.05	458,092	2.06	-	-	-	-
Undetermined/Not Applicable	506	25.41	8,828,121	39.62	13	50.00	2,221,688	96.81
Total	**1,991**	**100.00%**	**$22,286,986**	**100.00%**	**26**	**100.00%**	**$2,295,158**	**100.00%**

Table No. 13(b)

Breakdown of Fuel or Energy by Property Classification, 1988

Fuel or Energy	Mercantile No.	Mercantile Percent	Mercantile Amount	Mercantile Percent	Industrial Manufacturing Properties No.	Industrial Manufacturing Properties Percent	Industrial Manufacturing Properties Amount	Industrial Manufacturing Properties Percent
Coal, Wood	5	5.81%	$ 15,611	.33%	7	8.75%	$ 24,000	.74%
Fuel Oil	4	4.65	35,906	.77	3	3.75	5,000	.15
Gasoline	4	4.65	21,200	.45	1	1.25	50,000	1.53
Natural Gas	3	3.49	14,081	.30	2	2.50	5,200	.16
Propane	5	5.81	60,588	1.30	-	-	-	-
Smoker's Material	5	5.81	1,225	.03	-	-	-	-
Electricity	16	18.60	522,042	11.18	18	22.50	276,454	8.48
Lightning	2	2.33	62,667	1.34	1	1.25	350,000	10.73
Unclassified	2	2.33	1,010	.02	5	6.25	27,697	.85
Undetermined/Not Applicable	40	46.52	3,933,945	84.28	43	53.75	2,523,049	77.36
Total	**86**	**100.00%**	**$4,668,275**	**100.00%**	**80**	**100.00%**	**$3,261,400**	**100.00%**

Table No. 13(c)

Breakdown of Fuel or Energy by Property Classification, 1988

Fuel or Energy	Industrial Storage Properties No.	Industrial Storage Properties Percent	Industrial Storage Properties Amount	Industrial Storage Properties Percent	Special Property - Transportation Equipment No.	Special Property - Transportation Equipment Percent	Special Property - Transportation Equipment Amount	Special Property - Transportation Equipment Percent
Coal, Wood	29	12.29%	$ 302,890	7.09%	450	11.16%	$ 530,080	7.38%
Fuel Oil	3	1.27	150,060	3.51	134	3.32	185,002	2.58
Gasoline	3	1.27	21,950	.51	97	2.41	274,759	3.83
Natural Gas	1	.42	15,000	.35	-	-	-	-
Propane	10	4.24	136,263	3.19	81	2.01	146,030	2.03
Smoker's Material	2	.85	11,500	.27	34	.84	15,950	.22
Electricity	40	16.95	504,418	11.81	114	2.83	436,465	6.08
Lightning	6	2.54	77,160	1.81	6	.15	195	-
Unclassified	8	3.39	178,944	4.19	96	2.38	144,318	2.01
Undetermined/Not Applicable	134	56.78	2,874,139	67.27	3,021	74.90	5,449,001	75.87
Total	**236**	**100.00%**	**$4,272,324**	**100.00%**	**4,033**	**100.00%**	**$7,181,800**	**100.00%**

Table No. 13(d)

Breakdown of Fuel or Energy by Property Classification, 1988

Fuel or Energy	Miscellaneous Properties				Totals of All Property Classifications			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Coal, Wood	49	12.53%	$ 97,926	1.65%	893	12.74%	$ 3,865,197	6.37%
Fuel Oil	10	2.56	3,700	.06	163	2.33	464,358	.76
Gasoline	4	1.02	58,550	.99	112	1.60	438,094	.72
Natural Gas	1	.26	300,000	5.05	39	.56	679,592	1.12
Propane	5	1.28	65,700	1.11	178	2.54	1,520,853	2.51
Smoker's Material	4	1.02	43,500	.73	277	3.95	2,458,686	4.05
Electricity	61	15.60	1,874,528	31.55	1,039	14.82	10,018,196	16.50
Lightning	13	3.32	32,380	.54	91	1.30	1,437,695	2.37
Unclassified	27	6.91	56,289	.95	164	2.34	868,350	1.43
Undetermined/Not Applicable	217	55.50	3,408,733	57.37	4,054	57.82	38,959,896	64.17
Total	**391**	**100.00%**	**$5,941,306**	**100.00%**	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 14

Breakdown of Material First Ignited by Property Classification, 1988

Material First Ignited	Assembly				Institutional			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Components, Finish Materials	12	8.96%	$ 174,600	2.25%	1	3.03%	$ -	- %
Furniture, Furnishings	1	.75	100	-	5	15.15	2,400	.08
Clothing, Textiles	7	5.22	18,560	.24	6	18.19	5,100	.17
Wood, Paper Products	27	20.14	1,222,811	15.77	4	12.12	-	-
Flammable Liquids	28	20.90	354,319	4.57	2	6.06	400	.01
Flammable Gases	-	-	-	-	-	-	-	-
Chemicals	5	3.73	1,550	.02	1	3.03	-	-
Agricultural, Forest Products	2	1.49	400	.01	2	6.06	-	-
Miscellaneous	28	20.90	327,606	4.23	8	24.24	5,550	.18
Undetermined/Unclassified	24	17.91	5,653,172	72.91	4	12.12	3,037,100	99.56
Total	**134**	**100.00%**	**$7,753,118**	**100.00%**	**33**	**100.00%**	**$3,050,550**	**100.00%**

Table No. 14(a)

Breakdown of Material First Ignited by Property Classification, 1988

Material First Ignited	Residential				Business and Personal Services			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Components, Finish Materials	317	15.92%	$ 3,126,746	14.03%	2	7.69%	$ 200	.01%
Furniture, Furnishings	308	15.47	3,063,946	13.75	1	3.85	900	.04
Clothing, Textiles	69	3.47	303,997	1.36	1	3.85	100	-
Wood, Paper Products	127	6.38	1,185,045	5.32	4	15.38	756,138	32.94
Flammable Liquids	453	22.74	2,692,422	12.08	3	11.54	61,800	2.69
Flammable Gases	21	1.05	265,673	1.19	-	-	-	-
Chemicals	36	1.81	140,195	.63	-	-	-	-
Agricultural, Forest Products	24	1.21	353,981	1.59	-	-	-	-
Miscellaneous	333	16.73	2,211,746	9.92	7	26.92	5,720	.25
Undetermined/Unclassified	303	15.22	8,943,235	40.13	8	30.77	1,470,300	64.07
Total	**1,991**	**100.00%**	**$22,286,986**	**100.00%**	**26**	**100.00%**	**$2,295,158**	**100.00%**

Table No. 14(b)

Breakdown of Material First Ignited by Property Classification, 1988

Material First Ignited	Mercantile No.	Percent	Amount	Percent	Industrial Manufacturing Properties No.	Percent	Amount	Percent
Structural Components, Finish Materials	8	9.30%	$ 52,886	1.13%	12	15.00%	$ 374,200	11.47%
Furniture, Furnishings	1	1.16	2,500	.05	1	1.25	1,000	.03
Clothing, Textiles	4	4.65	3,300	.07	3	3.75	24,800	.76
Wood, Paper Products	14	16.28	259,242	5.55	12	15.00	98,397	3.02
Flammable Liquids	15	17.44	77,167	1.65	9	11.25	138,361	4.24
Flammable Gases	2	2.33	10,200	.22	-	-	-	-
Chemicals	2	2.33	3,025	.06	4	5.00	5,500	.17
Agricultural, Forest Products	1	1.16	-	-	6	7.50	337,000	10.33
Miscellaneous	18	20.93	490,333	10.51	18	22.50	386,735	11.86
Undetermined/Unclassified	21	24.42	3,769,622	80.76	15	18.75	1,895,407	58.12
Total	**86**	**100.00%**	**$4,668,275**	**100.00%**	**80**	**100.00%**	**$3,261,400**	**100.00%**

Table No. 14(c)

Breakdown of Material First Ignited by Property Classification, 1988

Material First Ignited	Industrial Storage Properties No.	Percent	Amount	Percent	Special Property - Transportation Equipment No.	Percent	Amount	Percent
Structural Components, Finish Materials	30	12.71%	$ 441,365	10.33%	33	.82%	$ 58,768	.82%
Furniture, Furnishings	6	2.54	2,400	.06	31	.77	48,300	.67
Clothing, Textiles	4	1.69	44,800	1.05	16	.40	62,470	.87
Wood, Paper Products	30	12.71	238,206	5.58	135	3.35	187,759	2.61
Flammable Liquids	13	5.51	180,176	4.22	147	3.64	437,207	6.09
Flammable Gases	1	.42	500	.01	46	1.14	31,572	.44
Chemicals	-	-	-	-	12	.30	2,170	.03
Agricultural, Forest Products	11	4.66	69,819	1.63	1,588	39.37	1,507,250	20.99
Miscellaneous	47	19.92	534,192	12.50	1,262	31.29	1,712,525	23.85
Undetermined/Unclassified	94	39.84	2,760,866	64.62	763	18.92	3,133,779	43.63
Total	**236**	**100.00%**	**$4,272,324**	**100.00%**	**4,033**	**100.00%**	**$7,181,800**	**100.00%**

Table No. 14(d)

Breakdown of Material First Ignited by Property Classification, 1988

Material First Ignited	Miscellaneous Properties				Totals of All Property Classifications			
	No.	Percent	Amount	Percent	No.	Percent	Amount	Percent
Structural Components, Finish Materials	20	5.12%	$ 89,645	1.51%	435	6.21%	$ 4,318,410	7.11%
Furniture, Furnishings	2	.51	-	-	356	5.08	3,121,546	5.14
Clothing, Textiles	2	.51	3,100	.05	112	1.60	466,227	.77
Wood, Paper Products	28	7.16	82,871	1.39	381	5.44	4,030,469	6.64
Flammable Liquids	11	2.81	82,954	1.40	681	9.71	4,024,806	6.63
Flammable Gases	1	.26	300,000	5.05	71	1.01	607,945	1.00
Chemicals	1	.26	50	-	61	.87	152,490	.25
Agricultural, Forest Products	191	48.85	1,892,569	31.85	1,825	26.03	4,161,019	6.85
Miscellaneous	39	9.97	55,744	.94	1,760	25.11	5,730,151	9.44
Undetermined/Unclassified	96	24.55	3,434,373	57.81	1,328	18.94	34,097,854	56.17
Total	**391**	**100.00%**	**$5,941,306**	**100.00%**	**7,010**	**100.00%**	**$60,710,917**	**100.00%**

Table No. 15

Number of Fires and Amount of Fire Loss by Community or Area, 1988

Municipal Code	Name	Number of Fires	Amount of Loss
001	R.M. of Albert	1	$ 15,000
002	Town of Altona	8	7,206
003	Village of Arborg	3	10,117
004	R.M. of Archie	16	100,783
005	R.M. of Argyle	7	43,111
006	R.M. of Arthur	3	8,000
010	Town of Beausejour	15	192,000
011	Village of Benito	6	9,850
012	R.M. of Bifrost	20	110,823
013	Village of Binscarth	1	150
014	R.M. of Birtle	8	2,297
015	Town of Birtle	3	1,500
018	R.M. of Boulton	5	46,000
020	City of Brandon	231	559,599
021	R.M. of Brenda	2	150,000
022	R.M. of Brokenhead	53	303,014
027	Town of Carberry	1	200
028	Town of Carman	3	129,897
029	R.M. of Cartier	15	447,963
030	Village of Cartwright	1	300
032	R.M. of Clanwilliam	9	33,800
033	R.M. of Coldwell	5	29,518
034	R.M. of Cornwallis	17	110,416
038	R.M. of Daly	5	42,500
039	R.M. of Dauphin	17	135,706
040	Town of Dauphin	21	1,354,057
042	R.M. of De Salaberry	21	168,305
043	R.M. of Dufferin	9	98,168
044	Village of Dunnottar	4	39,500
048	R.M. of East St. Paul	29	91,961
049	R.M. of Edward	3	34,750
050	Village of Elkhorn	4	54,066
052	R.M. of Elton	13	188,400
053	Town of Emerson	1	-
054	Village of Erickson	1	500
056	R.M. of Ethelbert	3	20,000
058	Village of Elm Creek	1	1,500
060	City of Flin Flon	45	256,547
063	R.M. of Franklin	53	95,544
067	R.M. of Gilbert Plains	8	41,500
068	Village of Gilbert Plains	3	516
069	R.M. of Gimli	23	350,896
070	Town of Gimli	6	35,870
071	Town of Gladstone	3	46,214

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1988

Municipal Code	Name	Number of Fires	Amount of Loss
072	Village of Glenboro	2	$ 20
073	R.M. of Glenella	10	2,150
074	R.M. of Glenwood	4	52,705
075	R.M. of Grandview	8	67,271
077	Village of Grand Marais	3	35,800
078	Village of Gretna	1	500
079	R.M. of Grey	18	159,998
081	Village of Haywood	3	74,260
082	R.M. of Hamiota	4	12,702
083	Village of Hamiota	1	-
084	R.M. of Hanover	117	1,236,619
085	R.M. of Harrison	2	16,000
086	Town of Hartney	1	1,417
090	Town of Killarney	9	3,175
092	Village of La Riviere	5	6,214
093	R.M. of La Broquerie	15	190,335
094	R.M. of Lac Du Bonnet	16	286,870
095	Village of Lac Du Bonnet	5	3,434
096	R.M. of Lakeview	6	10,890
097	R.M. of Langford	5	453
098	R.M. of Lansdowne	3	82,188
099	R.M. of Lawrence	6	4,300
100	R.M. of Lorne	12	71,240
101	R.M. of Louise	4	140,597
104	R.M. of MacDonald	28	32,542
105	Village of MacGregor	3	28,464
107	R.M. of McCreary	1	13,000
111	Town of Melita	2	437,094
112	R.M. of Miniota	7	-
113	R.M. of Minitonas	5	36,400
114	Village of Minitonas	4	4,817
115	Town of Minnedosa	9	122,591
116	R.M. of Minto	5	7,200
117	R.M. of Montcalm	6	73,970
118	Town of Morden	22	271,042
119	R.M. Morris	28	136,091
120	Town of Morris	3	205,400
121	R.M. of Morton	16	93,260
122	R.M. of Mossey River	3	1,000
123	U.V.D of Newdale	1	73,085
125	Town of Neepawa	16	34,000
126	Village of Niverville	4	9,900
127	R.M. of North Cypress	4	42,000
129	R.M. North Norfolk	31	117,662

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1988

Municipal Code	Name	Number of Fires	Amount of Loss
133	Town of Oak Lake	3	$ 179,998
134	R.M. of Oakland	8	48,450
135	R.M. of Ochre River	4	5,250
136	R.M. of Odanah	4	-
140	R.M. of Pembina	5	31,003
142	R.M. of Pipestone	23	70,450
143	Village of Plum Coulee	3	7,269
144	R.M. of Portage La Prairie	11	585,435
145	City of Portage La Prairie	22	84,910
150	R.M. of Rhineland	19	45,517
151	R.M. of Ritchot	37	254,881
153	R.M. of Riverside	1	1,500
154	Village of Riverton	1	500
155	R.M. of Roblin	4	19,500
156	Town of Roblin	4	459
157	R.M. of Rockwood	51	1,064,893
158	R.M. of Roland	1	3,741
159	R.M. of Rosedale	19	103,200
162	R.M. of Rosser	22	44,586
163	R.M. of Russell	6	64,214
164	Town of Russell	1	5,500
166	Village of Rosenort	2	26,568
167	R.M. of St. Andrews	35	301,680
168	R.M. of Ste. Anne	14	906,534
169	Village of Ste. Anne	1	-
170	Village of Swan Lake	6	188,100
171	Village of St. Claude	3	1,350
172	R.M. of St. Clements	19	490,939
173	R.M. of St. Francois Xavier	6	803,750
174	Village of St. Malo	9	21,026
175	R.M. of St. Laurent	23	211,270
177	Village of St. Pierrre Jolys	1	1,720
178	R.M. of Ste. Rose	15	624,611
179	Village of Ste. Rose Du Lac	7	1,250,600
180	U.V.D. of Sprague	3	7,500
181	Village of Sandy Lake	1	5,545
182	R.M. of Saskatchewan	4	41,493
183	Town of Selkirk	49	232,234
184	R.M. of Shellmouth	8	13,000
185	R.M. of Shell River	7	114,976
186	R.M. of Shoal Lake	15	3,090
187	Village of Shoal Lake	2	23,827
188	R.M. of Sifton	29	23,500

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1988

Municipal Code	Name	Number of Fires	Amount of Loss
189	R.M. of Siglunes	1	$ 2,500
190	R.M. of Silver Creek	1	-
191	Village of Somerset	2	10,000
193	R.M. of South Cypress	9	8,200
194	R.M. of South Norfolk	7	16,305
195	R.M. of Springfield	184	671,392
196	R.M. of Stanley	47	426,709
197	Town of Steinbach	35	53,473
198	Town of Stonewall	8	19,623
199	R.M. of Strathclair	2	202,627
200	R.M. of Strathcona	4	35,643
201	R.M. of Swan River	21	211,200
202	Town of Swan River	13	123,250
203	Village of Stony Mountain	5	1,010
205	R.M. of Tache	20	472,377
207	Town of The Pas	65	208,423
208	R.M. of Thompson	1	2,000
209	City of Thompson	111	475,890
212	R.M. of Turtle Mountain	18	272,866
216	R.M. of Victoria	3	46,000
217	R.M. of Victoria Beach	10	1,500
218	Town of Virden	8	2,243
221	R.M. of Wallace	54	831,490
222	Village of Waskada	1	1,500
223	Village of Wawanesa	3	14,000
224	R.M. of Westbourne	21	102,553
226	R.M. of West St. Paul	36	664,250
227	R.M. of Whitehead	13	105,040
228	R.M. of Whitemouth	31	309,112
229	R.M. of Whitewater	1	-
230	R.M. of Winchester	2	417,513
231	Town of Winkler	13	98,579
232	City of Winnipeg	4,038	24,260,293
233	Town of Winnipeg Beach	7	29,798
234	Village of Winnipegosis	3	14,400
235	R.M. of Woodlands	21	399,813
236	R.M. of Woodworth	8	179,018
237	Community of Warren	4	1,582
238	L.G.D. of Alexander	52	369,168
240	L.G.D. of Alonsa	13	101,303
242	L.G.D. of Armstrong	25	284,112
244	L.G.D. of Churchill	6	46,385
246	L.G.D. of Consol	9	145,000

Table No. 15 (continued)

Number of Fires and Amount of Fire Loss by Community or Area, 1988

Municipal Code	Name	Number of Fires	Amount of Loss
248	L.G.D. of Fisher	23	$ 137,300
250	L.G.D. of Gillam	10	3,104,368
252	L.G.D. of Grahamdale	20	228,900
254	L.G.D. of Grand Rapids	2	-
255	Bissett	1	-
256	Town of Leaf Rapids	2	66,300
258	L.G.D. of Lynn Lake	3	7,550
260	L.G.D. of Mountain	8	286,100
262	L.G.D. of Mystery Lake	1	-
264	L.G.D. of Park	11	30,293
266	L.G.D. of Pinawa	10	27,150
268	L.G.D. of Piney	15	157,145
270	L.G.D. of Reynolds	8	184,785
271	Cross Lake	16	-
272	Town of Snow Lake	5	354,400
273	Dakota Ojibway Tribal Council	23	301,500
274	L.G.D. of Stuartburn	22	222,043
275	Berens River	11	124,600
276	Wasagaming	2	38,587
277	Waterhen	2	10,000
278	Cranberry Portage	6	280,073
281	Brochet	1	1,000
282	Crane River	1	5,000
290	Sherridon	2	44,000
291	Duck Bay	3	5,598
292	Barrows/ Red Deer Lake	3	252,100
293	Cormorant	1	4,000
294	Camperville	6	76,700
296	Moose Lake	19	96,780
297	Norway House	4	7,000
298	South Indian Lake	1	50,000
299	Wabowden	3	35,400
300	Miscellaneous	40	449,906
315	West Region Tribal Council	5	42,000
316	Interlake Reserves Tribal Council	14	1,466,500
317	Southeast Resources Affiliation Council	12	382,180
318	Island Lake Tribal Council	2	-
319	Keewatin Tribal Council	36	374,100
320	No Tribal Council	24	2,602,000
321	Swampy Cree Tribal Council	23	136,150
324	Manfor, The Pas	1	-
	Total	**7,010**	**$60,710,917**

Table No. 16

Fires Causing Three or More Fatalities, 1988

Date	Location	Occupancy	Cause	Men	Women	Children	Total
88 01 01	L.G.D. Piney	Dwelling	Undetermined-accidental	3	-	-	3
88 12 26	Winnipeg	Dwelling	Accidental	1	-	2	3

Table No. 17
Fire Losses Exceeding $500,000., 1988

Date	Location	Occupancy	Reported Cause	Amount of Loss
88 01 02	Fisher River Indian Reserve	Band Complex and Arena	Undetermined-accidental	$ 1,187,500*
88 01 05	Fort Alexander Indian Reserve	High School	Undetermined-suspicious	2,500,000*
88 01 19	R.M. Wallace	Mercantile	Undetermined-accidental	613,032
88 01 25	Gillam	Hospital	Accidental	3,000,000*
88 01 25	R.M. West St. Paul	Industrial Manufacturing	Undetermined-accidental	535,500*
88 05 02	Winnipeg	Building Under Renovation	Accidental	1,000,000*
88 06 30	St. Francois Xavier	Industrial Manufacturing	Undetermined-suspicious	802,350*
88 07 04	Winnipeg	Business and Personnel Services	Incendiary	750,000*
88 07 16	R.M. Hanover	Barn	Electrical	510,000*
88 10 14	Winnipeg	Mercantile	Incendiary	1,543,156
88 10 21	R.M. Ste. Anne	Barn	Electrical	720,000*
88 11 23	Ste. Rose du Lac	Industrial Storage	Undetermined-accidental	925,400*
88 12 03	Winnipeg	Community Centre	Undetermined-suspicious	508,000*
88 12 18	Dauphin	Church	Incendiary	1,103,550*
88 12 23	Winnipeg	School	Undetermined	1,520,000*

**Estimated Loss*

Section II - Investigation

Table No. 18
Investigations Conducted Under The Fires Prevention Act, 1988

Area	Number of Investigations Conducted
Fire Commissioner's Staff	399
Winnipeg Police Force	182
Urban Police Forces	54
R.C.M.P.	288
Total	923

In co-operation with local police

Table No. 19
Findings of Investigations Conducted Under The Fires Prevention Act, 1988

Cause of Fire	Number
Accidental	390
Incendiary	193
Vandalism	55
Undetermined - Accidental	218
- Suspicious	63
Still Under Investigation	4
Total	923

Section III - Manitoba Fire Chiefs

List of Fire Chiefs and Fire Departments 1988

Alexander	W.J. Dane
Alonsa	Stan Fashoway
Altona	Bob Stoesz
Amaranth	Cecil Phillips
Angusville	Mike Klym
Arborg-Bifrost	George Chyzy
Arden	Dennis Gagnon
Ashern	Matt Baker
Austin	Donald Currie
Baldur-Argyle	William Warrener
Barrows	Leon Genaille
Beausejour	Ron Nikodem
Belmont	Edward Verhelst
Benito	Ken Schenk
Berens River	Rolly Dubien
Big Black River	Raymond Valiquette
Binscarth	Victor Cozens
Birch River	Floyd Corbett
Birtle	Gerald Birch
Bissett	Alden Wood
Boissevain	Eric Reichart
Bowsman	Ken Fahrenschon
Brandon	Ed Polnick
Brochet	Roderick Thomas
Camperville	George Flamond
Carberry-N. Cypress	R. Alvin Walker
Cardale	Wayne Horne
Carman-Dufferin	Brian Milne
Cartier, R.M.	Roger Gillis
Cartwright-Roblin	Wm. G. Waldie
Churchill	Dick Hunter
Cormorant	Joe Sydor
Cranberry Portage	Walter Queen
Crane River	John Fleury
Cross Lake	Glen Smith
Crystal City	William McKitrick
Cypress River	Rene D. Aubry
Dallas/Red Rose	Anthony Mankewich
Darlingford	Bob Davidson
Dauphin	Dave Seeley
Dauphin River	Erle Einarsson
Deloraine	William Cheyne
Dominion City	Barry Gushuliak
Duck Bay	Fred Sanderson
Dunrea	Len Clark
East St. Paul	Ernest Ottenbreit
East Selkirk	Clive Rennie
Easterville	Don Martin
Eddystone	Kelly Johnson
Elm Creek	Kermit Olson
Emerson	Stan Machdanz
Erickson	Ken Podruski
Eriksdale	Harry Granburg
Ethelbert	Mike Machnicki
Fisher Bay	Michael Whiteway
Fisher Branch	John Plett
Flin Flon	Reuban Hagen
Fork River	Bob Sime
Foxwarren	Don Hodgson
Fraserwood	Steve Maksymyk
Gilbert Plains	Len Pratt
Gillam	Brent Clayton
Gimli	Ray Sisk
Gladstone	Lyle Cox
Glenboro	Steve Bjornson
Glenella	Fred Lazor
Gods Lake Narrows	Raymond Trout
Grand Marais	Art Carriere
Grand Rapids	Greg King
Grandview	John Yarush
Granville Lake	George MacKenzie

List of Fire Chiefs and Fire Departments 1988(continued)

Gretna	John Teichroeb
Grunthal	Abe Friesen
Gypsumville	Murray L. Jackson
Hamiota	Barrie Lee
Hartney	R.A. McKenzie
Harwill	Lorne Webb
Haywood	J. Dheilly
Herb Lake Landing	Jim Corman
Holland	Ron Landerville
Homebrook	Ruth Zahorodney
Ilford	Edward Shoup
Inglis	Gerald Gorda
Inwood	Gordon Strick
Island Lake	Len Chotnaby
Kelwood	Duane Stewart
Kenton	Ivan Crampain
Killarney	C.E. Hartwell
Kleefeld	Abe Martens
La Broquerie	Gilbert Tetrault
Lac du Bonnet	Lloyd Howe
Leaf Rapids	Edward Kozy
Letellier-St. Joseph	Marc P. Lemay
Lorette	R. Desorcy
Lorne, R.M.	Peter Sheffield
Lowe Farm	Larry Gluck
Lundar	Stan Bjornson
Lynn Lake	Wayne Doak
MacDonald, R.M.	Alvin Murner
MacGregor	Ronald Borton
Mafeking	Melvin Plett
Manigotogan	Charles Simard
Manitou	Frank Gerbrandt
Matheson Island	Donald Ladouceur
McAuley	Glendon K. Patterson
McCreary	William Roncin
Meadow Portage	Ken Spence
Melita	Robert Reddaway
Miami	Larry Mansell
Miniota	S.W. Dales
Minitonas	Douglas E. Wagner
Minnedosa	Bill McVey
Moose Lake	Henry Comerford
Moosehorn	Richard Shannon
Morden	Percy Paracholski
Morris	Bill Harder
National Mills	Joe Genaille
Neepawa	Don Evenson
Nelson House	Wayne Spence
Newdale	Don Baker
Ninette	Bob Mason
Niverville	George Dyck
Norway House	Erwin McLeod
Notre Dame de Lourdes	Yves Julien
Oak Lake	Reg Morcombe
Oak River	Vernon Darroch
Oakbank	John Murrell
Oakburn	Graydon Bell
Ochre River	Gloen Recknell
Onanole & District	Dwight McMillan
Pelican Rapids	Albert Campeau
Pierson	Merv Nicholls
Pikwitonei	Leon Brightnose
Pilot Mound	K.L. Heppner
Pinawa	N. Peter Cliche
Pine Falls	Wilfred Kemball
Pine River	Wm. J. Bodnarchuk
Piney	Dale Edbom
Plumas	Ron Curtis
Plum Coulee	Norman Dyck
Pointe du Bois	Gordon Johnson

List of Fire Chiefs and Fire Departments 1988(continued)

Portage la Prairie	Albert R. McDonald
Rapid City	Chris Wells
Red Deer Lake	Faron Cook
Reston	William Busby
Richer	Paul Saindon
Rivers	Glen Maguire
Riverton	Raymond Johnson
Roblin	Tom Bowley
Roland	James Moffatt
Rorketon	Leo Hrushrowy
Rosedale, R.M.	Harry Smithson
Rosenort	Frank Plett
Rossburn	Larry Sidoryk
Rosser	Howard Manchukenko
Russell	Henry Smith
St. Adolphe	Vic Braun
St. Andrews, R.M.	Edwin Carter
St. Claude	Gilbert Pineau
St. Francois Xavier	John Zeemel
St. Jean Baptiste	Norbert Sabourin
St. Laurent	Ed Schon
St. Lazare	Harry Jessop
St. Malo	Dennis Maynard
St. Pierre-Jolys	R. Hebert
Ste. Anne	Maurice Chaput
Ste. Rose du Lac	William Ryder
Sandy lake	Les Lewandoski
Selkirk	Ted Wozny
Seymourville	Ted Seymour
Sherridon	Debbie Hatch
Shoal lake	Graydon Bell
Sifton	Martin Gancher
Snow Flake	Bill Giesbrecht
Snow Lake	David Syms
Somerset	Luc Boulet
Souris	Donald Doherty
South Indian Lake	Steve Ducharme
South Norfolk, R.M.	Eric Allan
Sperling	Wendell J. Fewster
Sprague	Stan Meek
Steinbach	Ert Peters
Stonewall-Rockwood	Dennis Fright
Stony Mountain-Rockwood	Robert Smith
Strathclair	Brian Martin
Swan River	Lorne Halliday
Teulon-Rockwood	Jack Palen
The Pas	Neil Puckett
Thicket Portage	Alvin Brightnose
Thompson	L. Carkener
Treherne	John Jenkinson
Victoria Beach	Robert L. Jonsson
Vita	Jerry Lubiansky
Wabowden	Mel Johnson
Wallace and District	Bill Edmonds
Warren-Woodlands	Al Jones
Wasagaming	Pat Rousseau
Waskada	Kenneth L. Austin
Waterhen	Allan McCreery
Wawanesa	Mel Roney
West St. Paul	Peter Schillberg
Whitemouth, R.M.	Paul Thomson
Whitewater, R.M.	Grant Maguire
Winkler	Abe H. Suderman
Winnipeg	Jack Henderson
Winnipeg Beach	Jerry Hykawy
Winnipegosis	C. Bergen